

Ser. No. 09/485,940
Amdt. dated December 22, 2003
Reply to Office action of June 20, 2003

RCA 88741

Listing of the Claims

Claim 1-7 (canceled)

A' cont'd

Claim ~~8~~¹ (new) A video display apparatus, comprising:
a plurality of cathode ray tubes for projecting an image subject to image distortion on a display screen,
each of said cathode ray tubes having at least one vertical deflection coil and at least one convergence coil mounted thereupon,
a first correction signal generator providing a first correction signal to said vertical deflection coils;
a second correction signal generator providing a second correction signal to said convergence coils;
a video pattern generator for generating said image upon said display, said image comprising rows and columns of spaced points generally defining a cross hatch grid;
wherein said first correction signal provides correction for selected columns of said cross hatch grid;
wherein said second correction signal provides correction for at least one column of said cross hatch grid other than said selected columns.

Claim ~~9~~² (new) The video display apparatus of claim ~~8~~¹ wherein said first correction signal provides a generally S shaped waveform.

Claim ~~10~~³ (new) The video display apparatus of claim ~~8~~¹ wherein said second correction signal generator includes a first memory for storing correction values corresponding to respective spaced points of said cross hatch grid.

Claim ~~11~~⁴ (new) The video display apparatus of claim ~~10~~³ wherein the stored correction values are interpolated values.

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Claim ~~12~~⁵. (new) The video display apparatus of claim ~~12~~³ wherein said second correction signal generator further includes an interpolator coupled to a memory, said interpolator providing interpolated correction values.

Claim ~~13~~⁶. (new) The video display apparatus of claim ~~13~~⁴ wherein said second correction signal includes said interpolated correction values.

Claim ~~14~~⁷. (new) The video display apparatus of claim ~~14~~⁴ wherein said interpolation values are linear interpolation values.

Claim ~~15~~⁸. (new) The video display apparatus of claim ~~15~~⁴ wherein said second correction signal generator includes a second memory for storing said interpolated values.

Claim ~~16~~⁹. (new) The video display apparatus of claim ~~16~~⁴ wherein said interpolator comprises an SGS Thomson STV4020 Digital Convergence integrated circuit.

Claim ~~17~~¹⁰. (new) The video display apparatus of claim ~~17~~⁴ wherein said second correction signal generator provides said linear interpolated correction values to said convergence coil such that the slope of said second correction signal waveform between any two adjacent ones of said intermediate points is limited to a predetermined range of values.

Claim ~~18~~¹¹. (new) The video display apparatus of claim ~~18~~¹⁰ wherein said predetermined range of values ranges between about plus and minus five steps of said digital to analog converter (DAC).

Claim ~~19~~¹². (new) The video display apparatus of claim ~~19~~¹⁰ wherein said predetermined range of values ranges between about plus and minus three steps of said digital to analog converter (DAC).

Claim ~~20~~¹³. (new) The video display apparatus of claim ~~20~~¹⁰ wherein said predetermined range of values ranges between about plus and minus three steps of said digital to

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analog converter (DAC) for a first subset of said other columns, and between about plus and minus two steps of said digital to analog converter (DAC) for a second subset of said other columns.

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cancel.*
Claim ~~21~~¹⁴. (new) The video display apparatus of claim ~~8~~¹ wherein said selected columns comprise columns A-D, H-L and P, and said other columns comprise columns E,G and M.

Claim ~~22~~¹⁵. (new) The video display apparatus of claim ~~14~~⁷ wherein said second correction signal generator adjusts said linear interpolated correction values such that the slope of said second correction signal waveform between any two adjacent ones of said intermediate points comprising selected other columns of said crosshatch grid is limited to a predetermined range of values.

Claim ~~23~~¹⁶. (new) The video display apparatus of claim ~~14~~⁷ wherein said plurality of cooperating cathode ray tubes comprise at least one red cathode ray tube, at least one green cathode ray tube, and at least one blue cathode ray tube and wherein said second correction signal generator adjusts said linear interpolated correction values for said green cathode ray tube such that the slope of said second correction signal waveform between any two adjacent ones of said intermediate points is limited to a predetermined range of values.

Claim ~~24~~¹⁷. (new) The video display apparatus of claim ~~8~~¹ wherein said first correction signal is an S correction signal and said second correction signal is an S curvature correction signal.